



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND  
POLLUTION PREVENTION

July 6, 2012

MEMORANDUM

Subject: Acute Toxicity Review for EPA Reg. No. 74530-LU

Name of the Product: Kendo 22.8 CS  
EPA File Symbol: 74530-LU  
DP Barcode: 403179  
Parent DP #:402803  
Decision No: 464259  
Action Code: R310  
PC Code: 128897

From: Jolene Trujillo, Biologist  
Risk Management and Implementation Branch V (7508P)  
Pesticide Re-evaluation Division

MJP

To: Mark Suarez  
Insecticide Branch  
Registration Division (7505P)

Applicant: Helm Agro US, Inc.  
8275 Tournament Dr. Suite 340  
Memphis, TN 38125

FORMULATION FROM LABEL:

	<u>% by wt.</u>
<u>Active Ingredient(s):</u>	
Lambda-cyhalothrin .....	22.8
<u>Other Ingredient(s):</u> .....	<u>77.2</u>
Total: .....	100.0

**Background Information:** The registrant has submitted acute toxicity studies to support the registration of their product, EPA Reg. No. 74530-LU. The MRID's are as follows: 488128-03 (81-1), 488128-04 (81-2), 488128-05 (81-3), 488128-06 (81-4), 488128-07 (81-5), 488128-08 (81-6). Study 81-3 was conducted by Product Safety Labs, with the remaining studies conducted by BSL Bioservice, Scientific Laboratories GmbH. The test material used in each of the studies was confirmed by the Registrant to be the subject product, identified as Lambda-Cyhalothrin 250 CS for the studies.

**Findings:**

The acute toxicity studies submitted are acceptable to support the registration of EPA Reg. No. 74530-LU.

The acute toxicity profile for EPA Reg. No. 74530-LU is currently:

Acute Oral	II	Acceptable
Acute Dermal	III	Acceptable
Acute Inhalation	IV	Acceptable
Primary Eye	IV	Acceptable
Primary Dermal	IV	Acceptable
Skin Sensitization	Sensitizer	Acceptable

The acute toxicity requirements have been satisfied for the subject product.

**Labeling:**

**PRODUCT Reg. No.:** 74530-LU

**PRODUCT NAME:** Kendo 22.8 CS

**Precautionary Labeling**

**Signal Word    WARNING**

**Hazards to Humans and Domestic Animals**

May be fatal if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long sleeved shirt and long pants, socks, shoes and chemical resistant gloves (such as any waterproof material, selection category A).

**First Aid**

IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have product container or label with you when calling a poison control center or doctor or going to treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

#### USER SAFETY RECOMMENDATIONS:

User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.



## DATA EVALUATION RECORD

**Product Reg. No.:** 74530-LU  
**Product Name:** Kendo 22.8 CS

<b>1. DP BARCODE:</b> 403179				
<b>2. PC CODE:</b> 128897				
<b>3. CURRENT DATE</b> July 6, 2012				
Study/Species/Lab Study # /Date	MRID	Results	Tox Cat	Grade
Acute oral toxicity / rat/ BSL Bioservice, Scientific Laboratories GmbH/Lab project ID- 084460/ 03-03-09 OCSPP 870.1100; OECD 423	48812803	LD <sub>50</sub> cut off >300 mg/kg ≤ 2000 mg/kg  3 animals were tested at 2000 mg/kg, 2 animals were moribund after dosing and euthanized 6 animals were then tested at 300 mg/kg with no reported deaths- the LD <sub>50</sub> cut off was determined to be 1000 mg/kg.  Animals that survived dosing initially exhibited reduced spontaneous activity, light salivation, piloerection, then no further findings.  Acute injection of blood vessels in the abdominal region were due to euthanasia injection, no gross pathological findings were observed for any animal when necropsied.	II	A
Acute dermal toxicity / rat/ BSL Bioservice, Scientific Laboratories GmbH/Lab project ID- 084461/ 02-23-09 OCSPP 870.1200; OECD 402	48812804	Dermal LD <sub>50</sub> Males/females > 2000 mg/kg No treatment related effects observed. 1 female had a scab near the application site. Erythema grade 1 and scab formation was observed in 2/5 females. Scratches observed in 1/5 females. All irritation was reversible within the observation period	III	A
Acute inhalation toxicity / rat/ Product Safety Labs/ Lab	48812805	LC <sub>50</sub> Males and females > 2.06 mg/L	IV	A

project ID- 33342/ 02-09-12 OCSPP 870.1300; OECD 403		<p>2.2 µm MMAD</p> <p>One female was euthanized for humane reasons within one day of exposure- Animal exhibited abnormal respiration, tremors, ataxia, prone posture, convulsions, ano-genital staining and moribund condition.</p> <p>Gross necropsy revealed red lungs and liver and distention of stomach and intestines.</p> <p>Surviving animals initially exhibited abnormal respiration, hypoactivity and or ano-genital staining-these animals recovered by day 9 and were active and healthy for the remainder of the study.</p> <p>No gross abnormalities were noted for any of the surviving animals when necropsied.</p>		
Primary eye irritation / rabbit/ BSL Bioservice, Scientific Laboratories GmbH/Lab project ID- 084463/ 02-26-09 OCSPP 870.2400; OECD 405	48812806	<p>No corneal involvement or iritis observed</p> <p>No positive conjunctival irritation in 3/3 rabbits at 24 hrs. (all with a score of 1 for redness and chemosis.)</p> <p>All irritation clear by 72 hours.</p>	IV	A
Primary dermal irritation / rabbit/ BSL Bioservice, Scientific Laboratories GmbH/Lab project ID- 084462/ 02-24-09 OCSPP 870.2500; OECD 404	48812807	All scores 0 throughout the study	IV	A
Dermal sensitization / guinea pig-Maximization Test/ BSL Bioservice, Scientific Laboratories GmbH/Lab project ID- 084464/ 05-11-09 OCSPP 870.2600; OECD 406	48812807	<p>Is a sensitizer.</p> <p>Positive control (Mercaptobenzothiazole) appropriate (Jan./Feb.2009)</p>	--	A

Grade Key: A =Acceptable, U = Unacceptable, D = Data Gap

